Fig. 1

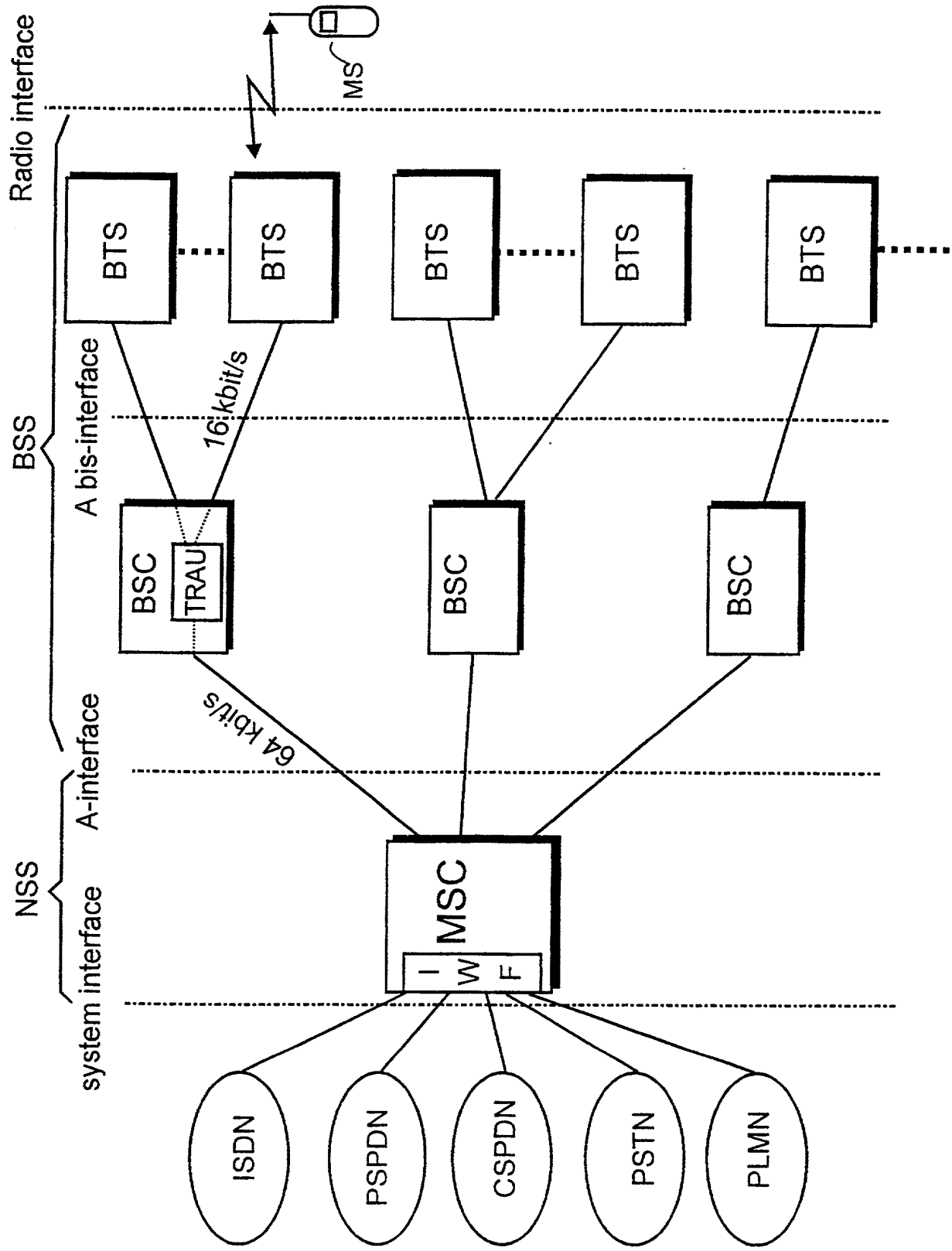

Radio interface
MS
BTS
BTS
BTS
BTS
BTS
BSS
A bis-interface
16 kbit/s
BSC
TRAU
BSC
BSC
64 kbit/s
A-interface
NSS
system interface
MSC
I
W
F
ISDN
PSPDN
CSPDN
PSTN
PLMN

Fig. 2a

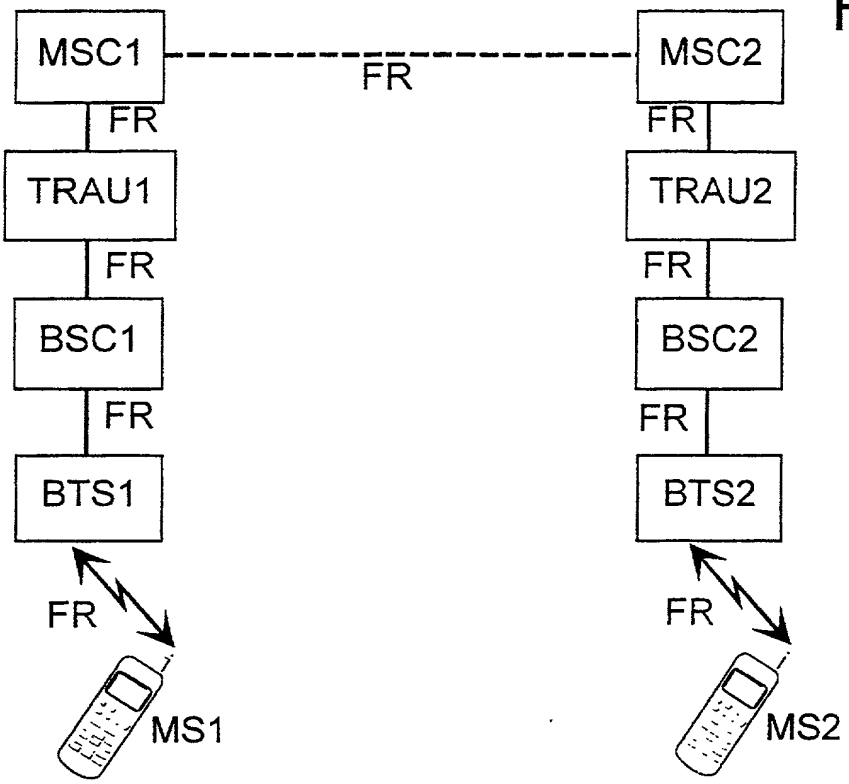
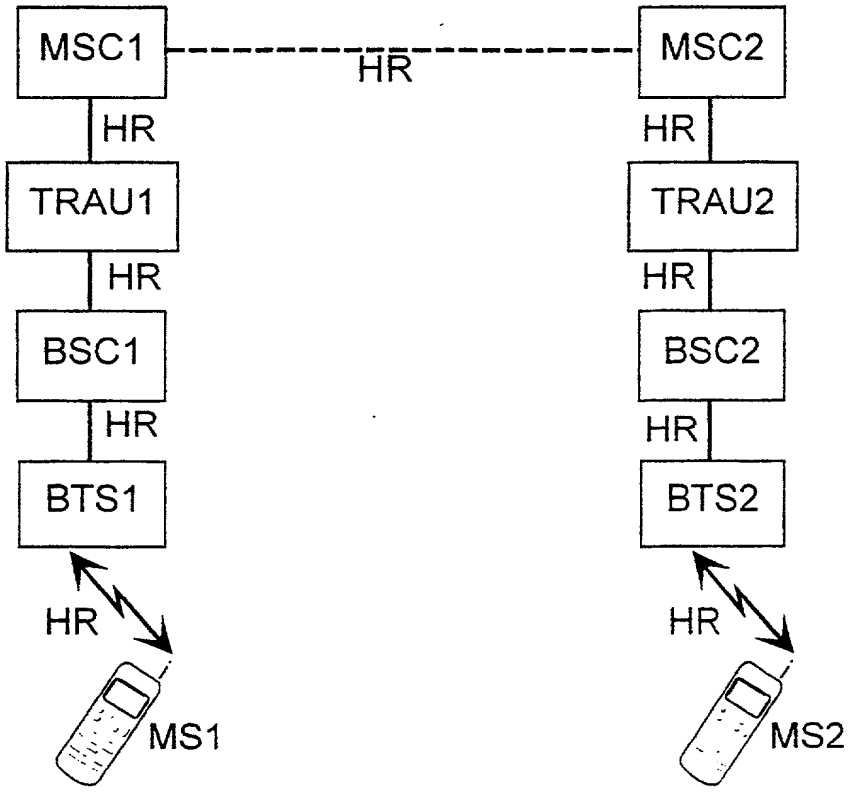

MSC1
FR
MSC2
FR
FR
TRAU1
TRAU2
FR
FR
BSC1
BSC2
FR
FR
BTS1
BTS2
FR
FR
MS1
MS2

Fig. 2b


MSC1
HR
MSC2
HR
HR
TRAU1
TRAU2
HR
HR
BSC1
BSC2
HR
HR
BTS1
BTS2
HR
HR
MS1
MS2

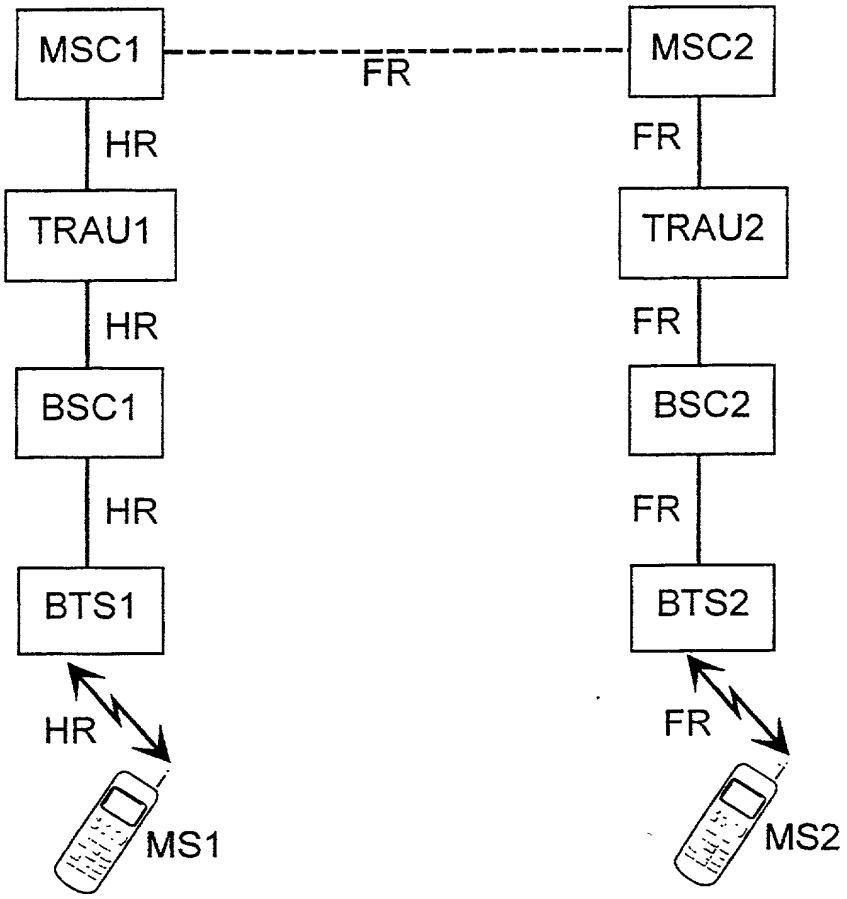

MSC1
FR
MSC2
HR
FR
TRAU1
TRAU2
HR
FR
BSC1
BSC2
HR
FR
BTS1
BTS2
HR
FR
MS1
MS2

Fig. 2c

Fig. 3

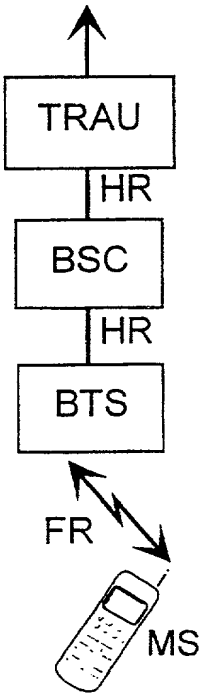

TRAU
HR
BSC
HR
BTS
FR
MS

Fig. 4a

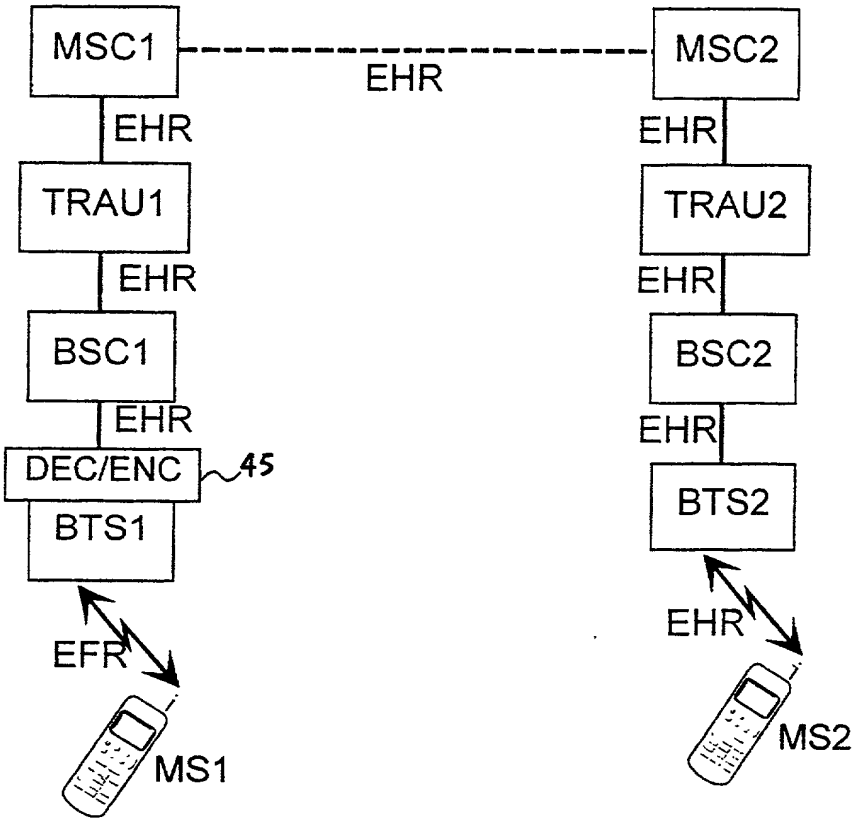
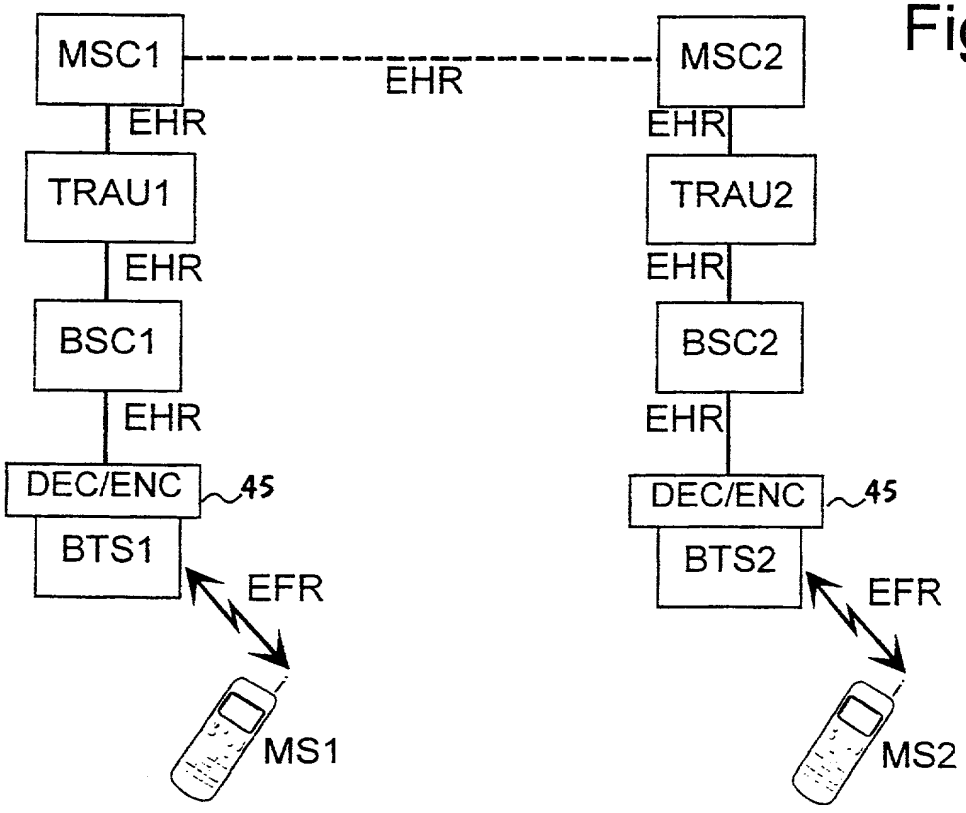

MSC1
EHR
MSC2
EHR
EHR
TRAU1
TRAU2
EHR
EHR
BSC1
BSC2
EHR
EHR
DEC/ENC
45
BTS2
BTS1
EHR
EFR
MS2
MS1

Fig. 4b


MSC1
EHR
MSC2
EHR
EHR
TRAU1
TRAU2
EHR
EHR
BSC1
BSC2
EHR
EHR
DEC/ENC
45
DEC/ENC
45
BTS1
BTS2
EFR
EFR
MS1
MS2

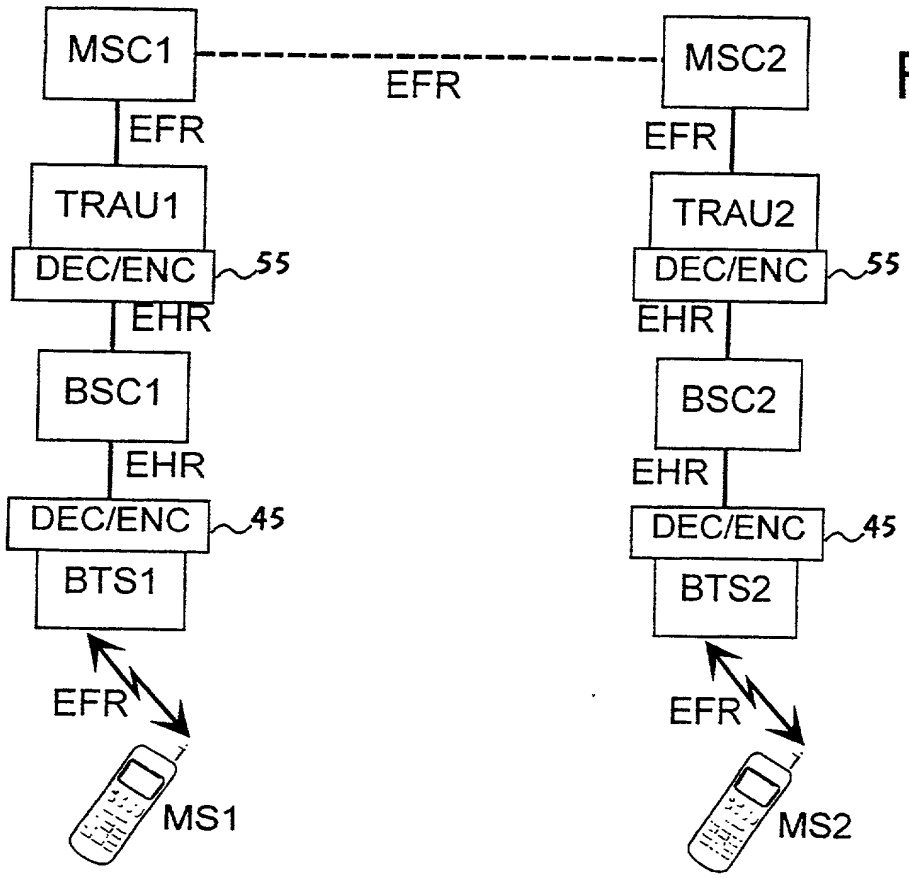

MSC1
EFR
MSC2
EFR
EFR
TRAU1
TRAU2
DEC/ENC
55
DEC/ENC
55
EHR
EHR
BSC1
BSC2
EHR
EHR
DEC/ENC
45
DEC/ENC
45
BTS1
BTS2
EFR
EFR
MS1
MS2

Fig. 5a

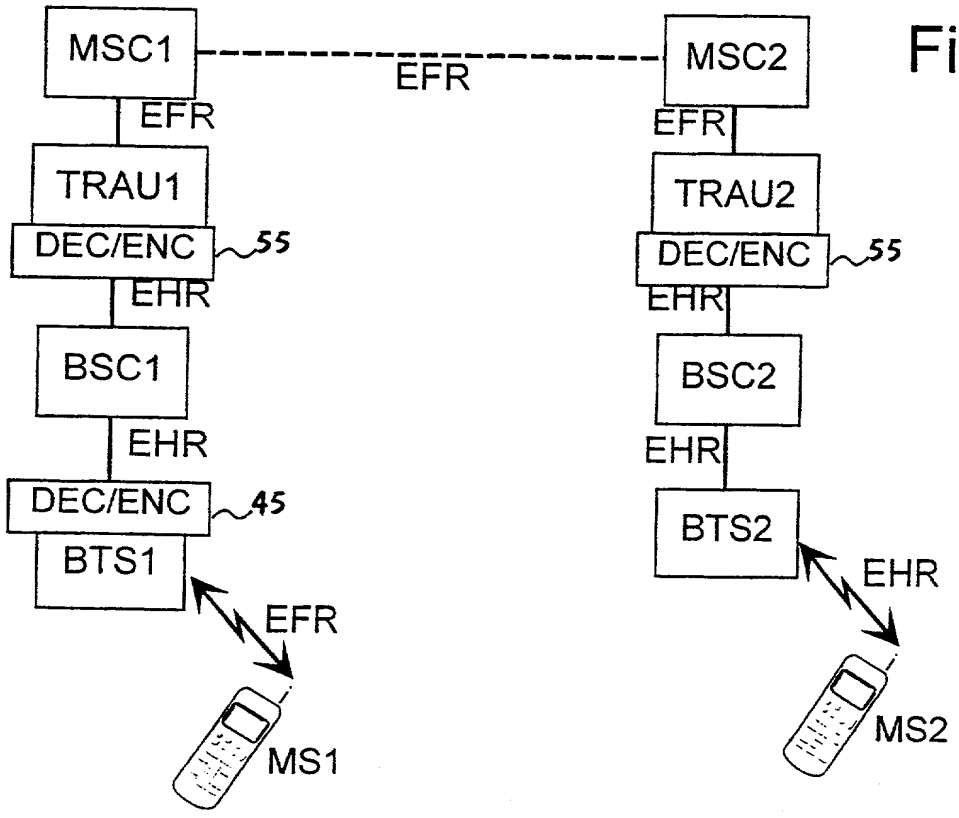

MSC1
EFR
MSC2
EFR
EFR
TRAU1
TRAU2
DEC/ENC
55
DEC/ENC
55
EHR
EHR
BSC1
BSC2
EHR
EHR
DEC/ENC
45
BTS1
BTS2
EFR
EHR
MS1
MS2

Fig. 5b

Fig. 6a

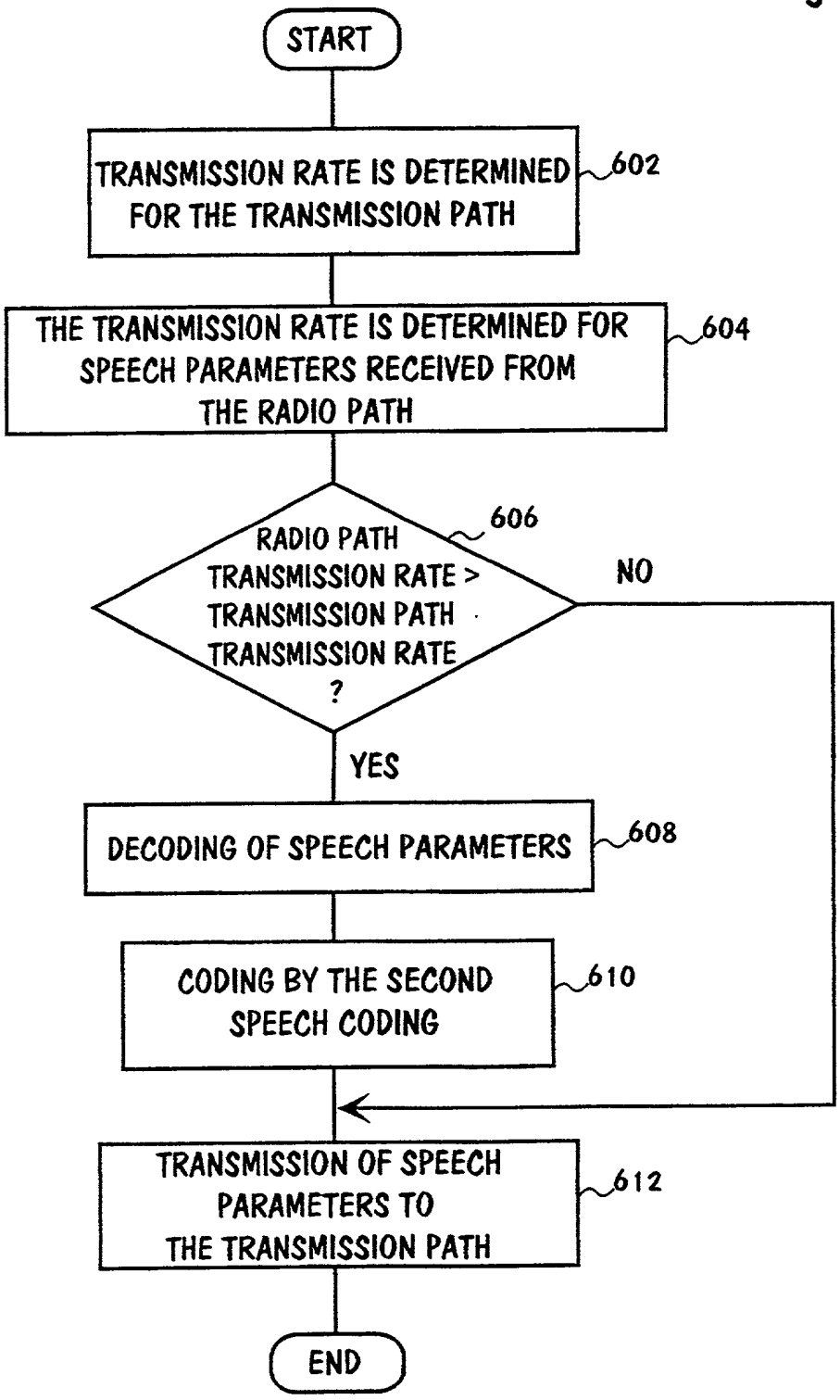
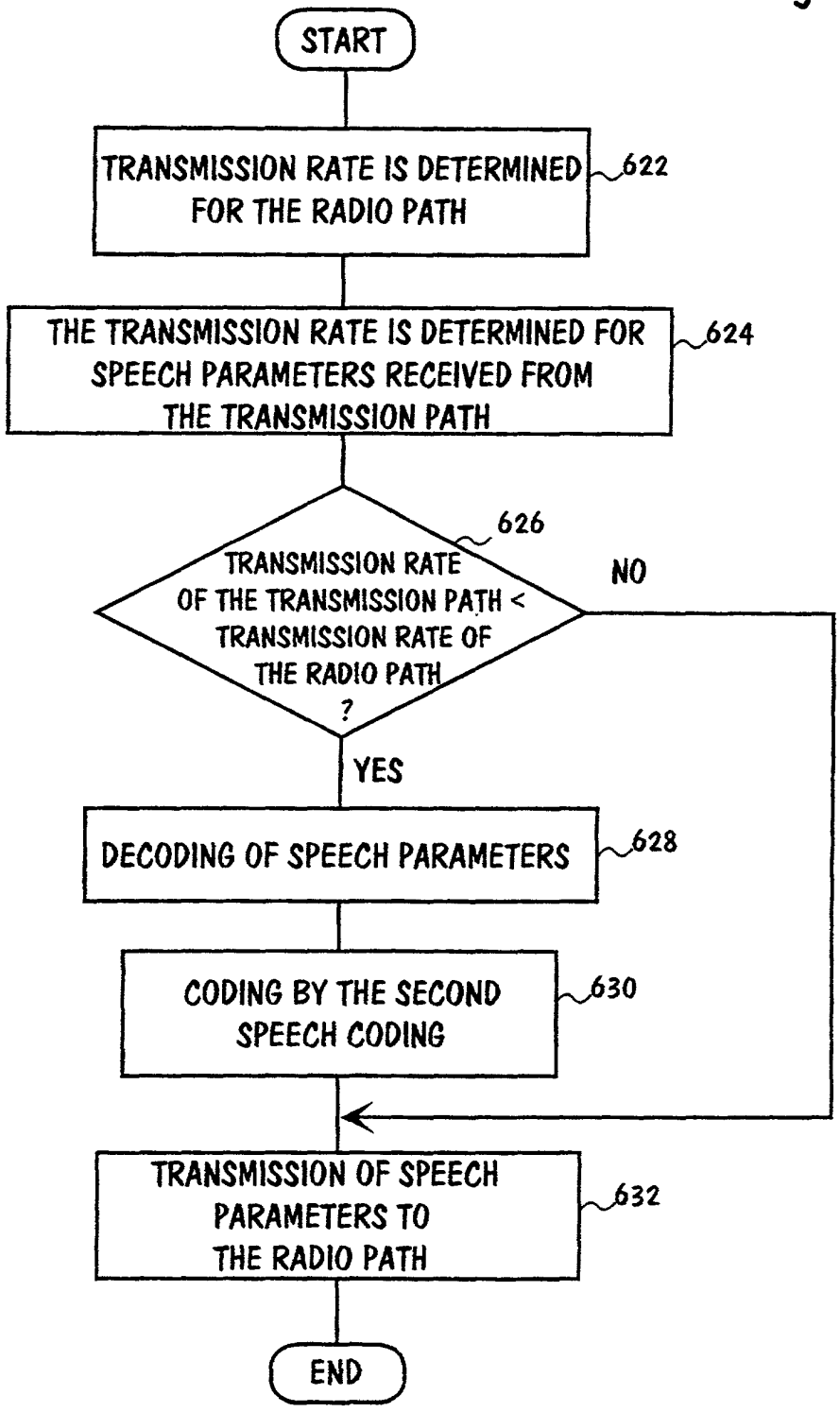

START
TRANSMISSION RATE IS DETERMINED FOR THE TRANSMISSION PATH
602
THE TRANSMISSION RATE IS DETERMINED FOR SPEECH PARAMETERS RECEIVED FROM THE RADIO PATH
604
RADIO PATH TRANSMISSION RATE > TRANSMISSION PATH TRANSMISSION RATE ?
606
NO
YES
DECODING OF SPEECH PARAMETERS
608
CODING BY THE SECOND SPEECH CODING
610
TRANSMISSION OF SPEECH PARAMETERS TO THE TRANSMISSION PATH
612
END

Fig. 6b


START
TRANSMISSION RATE IS DETERMINED FOR THE RADIO PATH
622
THE TRANSMISSION RATE IS DETERMINED FOR SPEECH PARAMETERS RECEIVED FROM THE TRANSMISSION PATH
624
626
TRANSMISSION RATE OF THE TRANSMISSION PATH < TRANSMISSION RATE OF THE RADIO PATH ?
NO
YES
DECODING OF SPEECH PARAMETERS
628
CODING BY THE SECOND SPEECH CODING
630
TRANSMISSION OF SPEECH PARAMETERS TO THE RADIO PATH
632
END